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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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FISH & RICHARDSON, P.C. PO BOX 1022 MINNEAPOLIS, MN 55440-1022			MORRISON, JAY A	
			ART UNIT	PAPER NUMBER
			2168	

DATE MAILED: 05/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/717,186

Applicant(s)

KOERNER ET AL.

Examiner

Jay A. Morrison

Art Unit

2168

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/28/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-20 are pending.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-5,7-10,12-16,18-19 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The cited claims do not produce a tangible result. Data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. See, e.g., Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. In addition, claims that do not in any way make tangible any results are also not statutory.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2-8 respectively recite the limitation "A database system in accordance with claim 1" in line 1. There is insufficient antecedent basis for this limitation in the claim. These claims could refer to "the database system in claim 1", which would solve this problem.

Claims 10-13 respectively recite the limitation "A method in accordance with claim 9" in line 1. There is insufficient antecedent basis for this limitation in the claim. These claims could refer to "the method in claim 9", which would solve this problem.

Claims 15-20 respectively recite the limitation "A platform in accordance with claim 14" in line 1. There is insufficient antecedent basis for this limitation in the claim. These claims could refer to "the platform in claim 14", which would solve this problem.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-2,5-7,9,11,13-20 are rejected under 35 U.S.C. 102(b) as being anticipated by King et al. ('King' hereinafter) (Patent Number 5,745,904).

As per claim 1, King teaches

"a database" (column 4, line 60 through column 5, line 10);

“one or more application tools, each of the tools being configured to access data objects from the database” (column 4, line 60 through column 5, line 10);

“a data buffer configured to store a copy of the data objects accessed from the database” (column 5, lines 25-42);

“and a delta buffer configured to store a delta record, wherein the delta record represents a change made by the one or more application tools to the data objects accessed from the database” (column 5, lines 25-42).

As per claim 2, King teaches

“the delta buffer is configured to generate a cumulative delta record” (column 5, lines 25-56).

As per claim 5, King teaches

“the delta buffer includes at least one delta record and each delta record has a corresponding request identifier, and wherein the request identifier is usable by a data object to represent the one or more delta records that have been used to update a data object” (column 5, lines 42-56).

As per claim 6, King teaches

“the delta buffer includes at least one delta record and the database system is configured to store the at least one delta record with data in the database” (column 5, lines 25-56).

As per claim 7, King teaches

"the data buffer and the delta buffer are parts of a system memory of a computer system" (column 6, lines 25-45; figure 2, items 68-69).

As per claim 9, King teaches

"reading data from a database" (column 4, line 60 through column 5, line 10);

"storing a data object in a data buffer, wherein the data object includes the data read from the database" (column 5, lines 25-42);

"accessing the data object from the data buffer with an application tool" (column 6, lines 11-25);

"storing, in a delta buffer, a delta record representing a change to the data object made by the application tool" (column 5, lines 42-56);

"and updating the data object in the data buffer with the delta record" (column 5, lines 42-56).

As per claim 11, King teaches

"storing the delta buffer in the database, wherein storing the delta buffer in the database includes integrating the one or more delta records in the delta buffer with the corresponding data in the database" (commit buffered changes, column 2, lines 22-35).

As per claim 13, King teaches

“associating the delta record with a request identifier, wherein the request identifier is usable by a data object to represent the one or more delta records that have been used to update a data object” (column 5, lines 42-56).

As per claim 14, King teaches

“a database storing data” (column 4, line 60 through column 5, line 10);

“a data buffer configured to store one or more data objects, wherein the at least one data object includes data read from the database” (column 5, lines 25-42);

“a reporting tool for reporting operations based on one or more data objects accessed from the data buffer” (column 8, line 60 through column 9, line 18);

“a planning tool, integrated with the reporting tool, for planning operations based on the one or more data objects accessed from the data buffer” (column 8, line 60 through column 9, line 18);

“and a delta buffer configured to store a delta record representing a change made to the one or more data objects by the reporting tool and/or planning tool” (column 5, line 25 through column 6, line 25).

As per claim 15, King teaches

“a server program configured to manage the data buffer” (column 5, line 25 through column 6, line 25).

As per claim 16, King teaches

"a server program configured to manage the delta buffer" (column 5, line 25 through column 6, line 25).

As per claim 17, King teaches

"the reporting tool and/or planning tool generates the delta record" (column 5, line 25 through column 6, line 25).

As per claim 18, King teaches

"the delta buffer stores at least one delta record and each delta record corresponds to a request identifier, wherein the request identifier represents at least one delta record that has been used to update a data object" (column 5, lines 42-56).

As per claim 19,

This claim is rejected on grounds corresponding to the arguments given above for rejected claim 8 and is similarly rejected.

As per claim 20, King teaches

"the delta buffer includes at least one delta record and the database system is configured to store the at least one delta record in the database, wherein storing the at least one delta record includes integrating the at least one delta record with data in the database" (commit buffered changes, column 2, lines 22-35).

Claim Rejections - 35 USC § 103

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7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 3,4,12 are rejected under 35 U.S.C. 103(a) as being unpatentable over King et al. ('King' hereinafter) (Patent Number 5,745,904) as applied to claims 1 and 9 above, respectively, and further in view of Cras et al. ('Cras' hereinafter) (Patent Number 6,831,668).

As per claim 3,

King does not explicitly indicate "the database is a multidimensional database."

However, Cras discloses "the database is a multidimensional database" (column 4, lines 3-21).

It would have been obvious to one of ordinary skill in the art to combine King and Cras because using the steps of "the database is a multidimensional database" would have given those skilled in the art the tools to improve the invention by dividing the database into more precise categories. This gives the user the advantage of being able to access the database along different dimensions.

As per claim 4,

King does not explicitly indicate "one of the one or more application tools is an online analytical processing (OLAP) tool."

However, Cras discloses "one of the one or more application tools is an online analytical processing (OLAP) tool" (column 6, lines 18-26).

It would have been obvious to one of ordinary skill in the art to combine King and Cras because using the steps of "one of the one or more application tools is an online analytical processing (OLAP) tool" would have given those skilled in the art the tools to improve the invention by providing more powerful analytical tools. This gives the user the advantage of having different views of the data available.

As per claim 12,

This claim is rejected on grounds corresponding to the arguments given above for rejected claim 3 and is similarly rejected.

9. Claims 8,10 are rejected under 35 U.S.C. 103(a) as being unpatentable over King et al. ('King' hereinafter) (Patent Number 5,745,904) as applied to claims 1 and 9 above, respectively, and further in view of Potts, Jr. et al. ('Potts' hereinafter) (Patent Number 6,516,339).

As per claim 8,

King does not explicitly indicate "the delta buffer is configured to compress two or more delta records to generate a cumulative delta record".

However, Potts discloses "the delta buffer is configured to compress two or more delta records to generate a cumulative delta record" (column 7, lines 39-65).

It would have been obvious to one of ordinary skill in the art to combine King and Potts because using the steps of "the delta buffer is configured to compress two or more delta records to generate a cumulative delta record" would have given those skilled in the art the tools to improve the invention by reducing the amount of memory used for storing deltas if the number of deltas becomes large. This gives the user the advantage of being able to work on computers with limited abilities and resources.

As per claim 10,

King does not explicitly indicate "compressing the delta buffer, wherein compressing the delta buffer includes generating a cumulative delta record".

However, Potts discloses "compressing the delta buffer, wherein compressing the delta buffer includes generating a cumulative delta record" (column 7, lines 39-65).

It would have been obvious to one of ordinary skill in the art to combine King and Potts because using the steps of "compressing the delta buffer, wherein compressing the delta buffer includes generating a cumulative delta record" would have given those skilled in the art the tools to improve the invention by reducing the amount of memory used for storing deltas if the number of deltas becomes large. This gives the user the advantage of being able to work on computers with limited abilities and resources.


Conclusion

The prior art made of record, listed on form PTO-892, and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jay A. Morrison whose telephone number is (571) 272-7112. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Vo can be reached on (571) 272-3642. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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